

ABSTRACT

AN ANALYSIS OF LYMPHADENOPATHY CASES WITH REFERENCE TO TUBERCULOSIS BY COMBINED RESULTS OF CONVENTIONAL AND MOLECULAR METHODS – A STUDY IN A TERTIARY CARE PEDIATRIC INSTITUTE

INTRODUCTION

Extra pulmonary tuberculosis is a common problem in pediatric population.

AIM

To evaluate children with lymphadenopathy by FNAC and to study cytomorphological patterns, detect AFB by Ziehl-Neelsen stain and Polymerase Chain Reaction for MTB to achieve early and rapid detection.

MATERIALS & METHODS

This is a prospective study conducted in Department of Pathology, Institute of Child Health. FNAC samples are obtained from Children with lymphadenopathy from December 2017 to September 2018. Smears are stained by Hematoxylin & Eosin, Ziehl Neelsen method and sent for PCR -Xpert MTB/RIF for MTB analysis. The results are compared and correlated with clinicopathological factors.

RESULTS

The cytological diagnosis were most frequently reactive lymphadenitis (69.5%) , followed by caseating granulomatous lymphadenitis , acute suppurative lymphadenitis (11% each), granulomatous lymphadenitis 7.3% AFB by Ziehl Neelsen method was positive in 22.2% in caseating granulomatous lymphadenitis group 22.2% and where as in granulomatous lymphadenitis group none were positive (0%). CBNAAT detected Mycobacterium tuberculosis in 77.8% of caseating granulomatous lymphadenitis and in 66.7% of granulomatous lymphadenitis.

CONCLUSION

Employment of a molecular technique like CBNAAT in FNAC aspirate helps to obviate the need of excision biopsy for diagnosis of tuberculous lymphadenitis especially when FNAC does not show caseous necrosis in a granulomatous lesion and AFB is not detected by Ziehl Neelsen method.

KEYWORDS

Lymphnode tuberculosis , FNAC, Ziehl Neelsen Stain, Polymerase Chain Reaction.